

CLAIMS

What is claimed is:

1. A sheet bending brake for securing a work piece, comprising:
a clamping member having a lower leg extending therefrom;
5 a pivoting arm pivotally supported by and extending from the clamping member to define a clamping area with the lower leg;
a guide mechanism reacting between the clamping member and the pivoting arm for moving said pivoting arm between an open position and a closed position, the guide mechanism having pivot link with a body, the body having a top end and a bottom end
10 and first and second side walls, the top end being rotatably coupled to the clamping member, the bottom end being rotatably coupled to the pivoting arm and having a pocket extending toward the top end and a pair of slots extending from one side wall to the other side wall, the pocket intersecting the pair of slots; and,
a spring mechanism located within the pocket and being coupled between the
15 guide mechanism and the pivoting arm.
2. A sheet bending brake, as set forth in claim 1, wherein the spring mechanism includes a spring.
3. A sheet bending brake, as set forth in claim 1, wherein the spring mechanism includes a bar composed of a resilient material.
- 20 4. A sheet bending brake, as set forth in claim 1, further comprising a bolt threaded through an aperture in the pivoting arm and the first and second slots, the spring mechanism being located between the bolt and an end of the pocket.

5. A sheet bending brake, as set forth in claim 1, the pocket having a first portion and a second portion.

6. A sheet bending brake, as set forth in claim 5, the spring mechanism
5 being located primarily within the first portion when the brake is in the open position.

7. A sheet bending brake, as set forth in claim 6, the spring mechanism being compressed when the brake is in the closed position, a deformed portion of the spring mechanism being located within the second portion.

8. A sheet bending brake, as set forth in claim 5, the first portion having a
10 cylindrical shape.

9. A sheet bending brake, as set forth in claim 5, the second portion having a conical shape.

10. A guide mechanism for use with a sheet bending brake for securing a work piece, the brake including a clamping member having a lower leg extending
15 therefrom, a pivot arm and a guide mechanism, the pivoting arm being pivotally supported by and extending from the clamping member to define a clamping area with the lower leg, the guide mechanism reacting between the clamping member and the pivoting arm for moving the pivoting arm between an open position and a closed position, comprising:

20 a pivot link having a body, the body having a top end and a bottom end and first and second side walls, the top end having an aperture extending from the first side wall to the second side wall, the bottom end having a pocket extending toward the top end and a pair of slots extending from one side wall to the other side wall, the pocket

intersecting the pair of slots;

a spring mechanism located within the pocket; and,

a rod inserted through the slots, the spring mechanism being located between the rod and an end of the pocket.

5 11. A guide mechanism, as set forth in claim 10, wherein the spring mechanism includes a spring.

 12. A guide mechanism, as set forth in claim 10, wherein the spring mechanism includes a bar composed of a resilient material.

 13. A guide mechanism, as set forth in claim 10, further comprising a bolt
10 threaded through an aperture in the pivoting arm and the first and second slots, the spring mechanism being located between the bolt and an end of the pocket.

 14. A guide mechanism, as set forth in claim 10, the pocket having a first portion and a second portion.

 15. A guide mechanism, as set forth in claim 14, the spring mechanism being
15 located primarily within the first portion when the brake is in the open position.

 16. A guide mechanism, as set forth in claim 15, the spring mechanism being compressed when the brake is in the closed position, a deformed portion of the spring mechanism being located within the second portion.

 17. A guide mechanism, as set forth in claim 14, the first portion having a
20 cylindrical shape.

 18. A guide mechanism, as set forth in claim 14, the second portion having a conical shape.